

The Patent Office of the People's Republic of China

Address: No. 6 XITUCHENG ROAD, JIMEN BRIDGE, HAI DIAN DISTRICT, BEIJING

Post Code: 100088

Applicant: SAMSUNG ELECTRONICS CO., LTD.	ISSUING DATE:
Agent: YING MA	2004.1.30.
Application No.: 02103152.5	

PCT LASER DIODE OUTPUT CONTROL APPARATUS ...



THE FIRST OFFICE ACTION

1. The applicant filed a request for substantive examination on Year _____ Month _____ Day _____ according to Article 35 Paragraph 1 of the Patent Law. The examiner has conducted a substantive examination to the above-mentioned patent application.
- According to Article 35 paragraph 2 of the Patent Law, Chinese Patent office decided on its own initiative to conduct a substantive examination to the above-mentioned patent application.
2. The applicant requested to take
 Year 01 Month 5 Day 17 on which an application is filed with the patent office as the priority date.
 Year _____ Month _____ Day _____ on which an application is filed with the _____ patent office as the priority date.
 Year _____ Month _____ Day _____ on which an application is filed with the _____ patent office as the priority date.
 The applicant has submitted the copy of the earliest application document certified by the competent authority of that country.
 According to Article 30 of the Patent Law, if the applicant has not yet submitted the copy of the earliest application document certified by the competent authority of that country, the declaration for Priority shall be deemed not to have been made.
- This application is a PCT application.
3. The applicant submitted the amended document(s) on Year 02 Month 11 Day 26 and Year _____ Month _____ Day after examination, _____ submitted on Year _____ Month _____ Day _____ is/are not accepted.
 _____ submitted on Year _____ Month _____ Day _____ is/are not accepted
 because the said amendment(s) is/are not in conformity with Article 33 of the Patent Law.
 is/are not in conformity with Rule 51 of the Implementing Regulations.
- The concrete reason(s) for not accepting the amendment(s) is/are presented on the text of Office Action.
4. The examination has been conducted based on the application text as originally filed.
 The examination has been conducted based on the following text(s):
 page(s) 1-11 of the specification, Claim(s) 1-16, and figure(s) 1-3 in the original text of the application submitted on the filing day.
- page(s) _____ of the specification, claim(s) _____, and figure(s) 4 submitted on Year 02 Month 4 Day 26.
 page(s) _____ of the specification, claim(s) _____, and figure(s) _____ submitted on Year _____ Month _____ Day _____
5. This notification was made without undergoing search.
 This notification was made with undergoing search.
 The following reference document(s) is/are cited: (the reference numeral(s) thereof will be used in the examination procedure hereafter)

NO.	Reference No. or Title	Publishing Date
1	US 4796250 A	1989. 1. 3
2	US 6222814 B1	2001. 4. 29
3		
4		
5		



6. Concluding comments

on the specification:

- The contents of the application are in contrary to Article 5 of the Patent Law and therefore are not patentable.
- The contents of the application do not possess the practical applicability as prescribed in Paragraph 4 of Article 5 of the Patent Law.
- The specification is not in conformity with the provision of Paragraph 3 of Article 26 of the Patent Law.
- The presentation of the specification is not in conformity with the provision of Rule 18 of the Implementing Regulations.

on the claims:

- Claim(s) _____ belong(s) to non-patentable subject matter as prescribed in Article 25 of the Patent law.
- Claim(s) _____ do(es) not comply with the definition of a patent as provided in Rule 2 paragraph 1 of the Implementing Regulations.
- Claim(s) _____ do(es) not possess novelty as requested by Article 22 paragraph 2 of the Patent Law.
- Claim(s) _____ do(es) not possess inventiveness as requested by Article 22 paragraph 3 of the Patent Law.
- Claim(s) _____ do(es) not possess practical applicability as requested by Article 22 paragraph 4 of the Patent Law.
- Claim(s) _____ do(es) not comply with the provision of Article 26 paragraph 4 of the Patent Law.
- Claim(s) _____ do(es) not comply with the provision of Article 31 paragraph 1 of the Patent Law.
- Claim(s) 2. 6. 8. 13. 15. 16 do(es) not comply with provision of Rules 20 to 23 of the Implementing Regulations.
- Claim(s) _____ do(es) not comply with the provision of Article 9 of the Patent Law.
- Claim(s) _____ do(es) not comply with the provision of Rule 12 paragraph 1 of the Implementing Regulations.

The detailed analysis for the above concluding comments is presented on the text of this Office Action.

7. Based on the above concluding comments, the examiner is of the opinion that

The applicant should amend the application document(s) in accordance with the requirement as specified in the Office Action.

The applicant should, in his observation, expound the patentability of the application of the application, amend the defects pointed out in the Office Action; or the application can hardly be approved.

The examiner deems that the application lacks substantive features to make it patentable. Therefore, the application will be rejected if no convincing reasons are provided to prove its patentability.

8. The applicant should pay attention to the following matters:

- (1) According to Article 37 of the Patent Law, the applicant is required to submit his observations within Four months upon receipt of this Office Action. If the time limit for making response is not met without any justified reason, the application to have been withdrawn.
- (2) The amendment(s) made by the applicant must meet the requirements of Article 33 of the Patent Law. The amended text should be in duplicate, its format should conform to the related confinement in the Guidance for Examination.
- (3) The applicant and/or the agent should not go to the Chinese Patent Office to interview the examiner without being invited.
- (4) The observation and/of the amended document(s) must be mailed or delivered to the Receiving Section of the Chinese Patent Office. No legal effect shall apply for any document(s) that not mailed to or reached the Receiving Section.

9. The text of this Office Action contains 2 page(s), and has the following attachment(s):

2 copies of the cited references, all together 25 pages.

Examination Dept. No. 9 Examiner _____ Seal of Examination Dept. for business only _____
(if the Office Action wasn't stamped by the specified seal, it has no legal effect)

中华人民共和国国家知识产权局 PGM 2439

邮政编码：100101

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北京市柳沈律师事务所

马莹 邵亚丽



审查员签章

申请号	02103152.5	部门及通知书类型	9
申请人	三星电子株式会社		
发明名称	激光二极管输出控制设备		



发文日期

第一次审查意见通知书

1. 依申请人提出的实审请求，根据专利法第 35 条第 1 款的规定，审查员对上述发明专利申请进行实质审查。

根据专利法第 35 条第 2 款的规定，国家知识产权局决定自行对上述发明专利申请进行审查。

2. 申请人要求以其在：

韩国 专利局的申请日 2001 年 05 月 17 日为优先权日，
 _____ 专利局的申请日 _____ 年 _____ 月 _____ 日为优先权日。

申请人已经提交了经原申请国受理机关证明的第一次提出的在先申请文件的副本。

申请人尚未提交经原申请国受理机关证明的第一次提出的在先申请文件的副本，根据专利法第 30 条的规定视为未提出优先权要求。

3. 申请人于 2002 年 04 月 26 日和 _____ 年 _____ 月 _____ 日提交了修改文件。

经审查，其中： _____ 年 _____ 月 _____ 日提交的 _____ 不能被接受；

_____ 年 _____ 月 _____ 日提交的 _____ 不能被接受；

因为上述修改 不符合专利法第 33 条的规定。 不符合实施细则第 51 条的规定。

修改不能被接受的具体理由见通知书正文部分。

4. 审查是针对原始申请文件进行的。

审查是针对下述申请文件的：

申请日提交的原始申请文件的权利要求第 1-16 项、说明书第 1-11 页、附图第 1-3 页；
 2002 年 4 月 26 日提交的权利要求第 _____ 项、说明书第 _____ 页、附图第 4 页；
 _____ 年 _____ 月 _____ 日提交的权利要求第 _____ 项、说明书第 _____ 页、附图第 _____ 页；
 _____ 年 _____ 月 _____ 日提交的权利要求第 _____ 项、说明书第 _____ 页、附图第 _____ 页；
 _____ 年 _____ 月 _____ 日提交的说明书摘要， _____ 年 _____ 月 _____ 日提交的摘要附图。

5. 本通知书是在未进行检索的情况下作出的。

本通知书是在进行了检索的情况下作出的。

本通知书引用下述对比文献(其编号在今后的审查过程中继续沿用)：

回函请寄：100088 北京市海淀区前门桥西土城路 6 号 国家知识产权局专利局受理处收
 2201 2001.7 (注：凡寄给审查员个人的信函不具有法律效力)

编号	文件号或名称	公开日期
1	US4796250A	1989 年 1 月 3 日
2	US6222814B1	2001 年 4 月 24 日
3		年 月 日
4		年 月 日

6. 审查的结论性意见:

关于说明书:

- 申请的内容属于专利法第 5 条规定的不授予专利权的范围。
- 说明书不符合专利法第 26 条第 3 款的规定。
- 说明书的撰写不符合实施细则第 18 条的规定。
-

关于权利要求书:

- 权利要求 _____ 不具备专利法第 22 条第 2 款规定的新颖性。
- 权利要求 1 _____ 不具备专利法第 22 条第 3 款规定的创造性。
- 权利要求 _____ 不具备专利法第 22 条第 4 款规定的实用性。
- 权利要求 _____ 属于专利法第 25 条规定的不授予专利权的范围。
- 权利要求 _____ 不符合专利法第 26 条第 4 款的规定。
- 权利要求 2 _____ 不符合专利法第 31 条第 1 款的规定。
- 权利要求 _____ 不符合专利法实施细则第 2 条第 1 款关于发明的定义。
- 权利要求 _____ 不符合专利法实施细则第 13 条第 1 款的规定。
- 权利要求 2、6、8、13、15、16 _____ 不符合专利法实施细则第 20 条至第 23 条的规定。
-

上述结论性意见的具体分析见本通知书的正文部分。

7. 基于上述结论性意见, 审查员认为:

- 申请人应按照通知书正文部分提出的要求, 对申请文件进行修改。
- 申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由, 并对通知书正文部分中指出的不符合规定之处进行修改, 否则将不能授予专利权。
- 专利申请中没有可以被授予专利权的实质性内容, 如果申请人没有陈述理由或者陈述理由不充分, 其申请将被驳回。
-

8. 申请人应注意下述事项:

- (1) 根据专利法第 37 条的规定, 申请人应在收到本通知书之日起的 2 个月内陈述意见, 如果申请人无正当理由逾期不答复, 其申请将被视为撤回。
- (2) 申请人对其申请的修改应符合专利法第 33 条的规定, 修改文本应一式两份, 其格式应符合审查指南的有关规定。
- (3) 申请人的意见陈述书和/或修改文本应邮寄或递交国家知识产权局专利局受理处, 凡未邮寄或递交给受理处的文件不具备法律效力。
- (4) 未经预约, 申请人和/或代理人不得前来国家知识产权局专利局与审查员举行会晤。

9. 本通知书正文部分共有 2 页, 并附有下述附件:

引用的对比文件的复印件共 2 份 24 页。



审查 9 部

审查员 _____

审查部门业务专用章 _____
(未加盖审查业务专用章的通知书不具备法律效力)

第一次审查意见通知书正文

(一)

1. 权利要求 2、6、8、13、15、16 不符合专利法实施细则第二十条第一款有关权利要求应清楚、简要限定保护范围的规定：

①权利要求 2 中“模数转换器，用于采样电流/电压转换器的输出”含义不清楚，申请人只说明了“用于”，却没有说明用于“干什么”，按照说明书的记载，应当是模数转换器，用于将采样后的电流/电压转换的输出进行模数转换；

②权利要求 6 中出现了内部为非附图标记的括号 (NRZI)，导致权利要求保护范围不清楚；

③权利要求 8 的主题名称不清楚，应当修改为“如权利要求 6 所述的设备，还包括”；

④权利要求 13 中第三段中出现的“第二多路复用器”未进行明确的定义，导致权利要求保护范围不清楚；

⑤权利要求 15、16 中“控制寄存器中的控制功率值”含义不清楚，按照其引用的在前的权利要求，在控制寄存器中存储的是施加到激光二极管的功率值，并未提到控制功率值。

2. 权利要求 2 中“电流/电压转换器，用于将激光二极管的输出转换成电压信号”与说明书相关内容不符，按照说明书的记载，电流/电压转换器适用于将 PD 的输出转换成电压信号。

3. 权利要求 1 请求保护一种激光二极管输出控制设备，对比文件 1 (US4796250A，说明书 6-8 栏，附图 7) 公开了一种应用激光二极管进行读写的光盘装置，其披露了：根据通过比较激光二极管输出电平与参考功率电平的值，控制激光二极管功率的输出，包括：采样和保持电路 5，用于对从激光二极管输出的当前功率值进行采样；比较器 5 (相当与权利要求 1 中的算术单元)，用于根据从采样和保持电路输出的当前功率值和参考功率值输出施加到激光二极管的控制功率值。

权利要求 1 与对比文件 1 的区别在于，权利要求 1 中还包括控制器，用于

根据将被记录的西数据产生的控制信号，用于控制采样装置和算术单元的操作。

上述区别技术特征已被对比文件 2 (US6222814B1, 说明书 6-8 栏, 附图 7) 所公开的一种记录和重现装置所披露：CPU60 (相当于权利要求 1 中的控制器) 根据写数据控制 APC (相当于权利要求 1 中的算术单元) 的操作，并通过控制采样和保持选择器从而控制采样装置 53-54 的操作。

上述区别技术特征在对比文件 2 和权利要求 1 中都是为了解决对采样操作和算术单元的控制的技术问题，对比文件 2 给出了在对比文件 1 上解决其技术问题的技术启示，由此可知，在对比文件 1 的基础上结合对比文件 2 得出权利要求 1 所要求保护的技术方案，对本领域的技术人员来说是显而易见的，而且它们的结合没有产生预料不到的效果，因此权利要求 1 不具备突出的实质性特点和显著的进步，不具备专利法第二十二条第三款所规定的创造性。

基于上述理由，本申请按照目前的文本是不能授权的，申请人应根据上述审查意见在指定的期限内提交新的权利要求书和说明书，修改时应满足专利法第三十三条的规定，不得超出原说明书和权利要求书的记载范围。申请人在修改权利要求后，也应对说明书作出适应性修改。请针对审查意见通知书进行答复，否则将可能导致提交文本不予接受。

TEXT OF THE FIRST OFFICE ACTION

1. Claims 2, 6, 8, 13, 15, and 16 do not comply with the provision of Rule 20, paragraph 1 of the Implementing Regulations of the Patent Law of China that the claims shall define clearly and concisely the matter for which protection is sought.

① In claim 2 the meaning of “an analogue/digital converter for sampling an output of the current/voltage converter” is not clear. According to the disclosure contained in the specification, it shall be “an analogue/digital converter for analogue/digital converting the sampled output of the current/voltage converter”.

② In claim 6 appear parentheses (NRZI) within which non-reference sign is placed, which renders the protection scope of the claim unclear.

③ The subject matter of claim 8 is not clear, which shall be amended to “the apparatus of claim 6, further comprising”.

④ Claim 13 fails to provide a clear definition of “second multiplexer” appearing in paragraph 3 of the claim, which renders the protection scope of the claim unclear.

⑤ In claims 15 and 16 the meaning of “a control power value stored in the control register” is not clear. According to the preceding claim which they refer to, the control register stores power value applied to the laser diode instead of the control power value.

2. “A current/voltage converter for converting an output of the laser diode into a voltage signal” disclosed in claim 2 is not consistent with corresponding contents in the specification. According to the disclosure contained in the specification, the current/voltage converter is used to converting an output of PD into a voltage signal.

3. Claim 1 claims to protect a laser diode output control apparatus. However, reference 1 (US4796250A, columns 6 to 8 of the specification, as well as Fig. 7) has disclosed an apparatus for reading and writing data from/into an optical disc by using a laser diode. Said apparatus controls an output power of the laser diode by comparing an output level of the laser diode with a reference power level value, and the apparatus comprises: sample and hold circuits 4 for sampling the present power value output from the laser diode; comparators 5 (equivalent to the arithmetic means in claim 1) for outputting a control power value applied to the laser diode, based on the present power value output from the sample and hold circuits and a reference power value.

The difference between claim 1 and reference 1 lies in that, in claim 1 there is further comprised a controller for generating control signals, which control the operations of

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the sampling means and the arithmetic unit, based on write data to be recorded.

However, the above distinctive technical feature has been disclosed by the recording/reproducing apparatus in reference 2 (US6222814B1, columns 6 to 8 of the specification, as well as Fig. 7): CPU60 (equivalent to the controller in claim 1) controls the operations of APC (equivalent to the arithmetic unit in claim 1) based on write data, and the operations of sampling means 53 to 54 by controlling a sample and hold selector.

Either in reference 2 or claim 1, the above distinctive technical feature is directed for the solution of the technical problem of controlling the sampling operations and the arithmetic unit. Thus, reference 2 provides a technical inspiration of resolving the technical problem on the basis of reference 1. It is obvious for those skilled in the art to obtain the technical solution sought for protection in claim 1 on the basis of reference 1 combining with reference 2, and the combination does not produce any unexpected effects. Therefore, claim 1 does not possess any prominent substantive feature or represent any notable progress, nor does it possess inventiveness prescribed in Article 22, paragraph 3 of the Patent Law of China.

Based on the reasons mentioned above, the present application shall not be granted a patent right under the current text. The applicant shall submit the new claims and specification amended in accordance with the above examination opinions within the specified time limit. Any amendment shall not go beyond the scope of the disclosure contained in the original specification and claims so as to comply with the provision of Article 33 of the Patent Law of China. Having amended the claims, the applicant shall also make corresponding amendments to the specification. Furthermore, the applicant shall make response with respect to the office action. Otherwise, the text to be submitted may not be accepted.

Examiner: Deng Wei

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